AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A process for labeling biomolecules bearing free reactive groups with a label compound which reacts to form a covalent bond, comprising feeding solutions of both compounds in defined quantitative flow rates to a micromixer, and mixing intensively there, then optionally feeding the reaction mixture into a delay structure, and retaining there for a time predetermined by the volume of the delay structure and the flow rate of the reaction mixture, and terminating the reaction after a time predefined by the reaction conditions.

2. (Currently Amended) The process as claimed in claim 1, wherein the free reactive groups are selected from the group consisting of amino, thiol, alcohol, aldehyde/ketone and/or carboxylic acid groups.

3. (Currently Amended) The process according to claim 1, wherein the biomolecules are selected from the group consisting of proteins, nucleic acids and~~/or~~ saccharides.

4. (Currently Amended) The process according to claim 1, wherein the micromixer is a ~~micromixer~~ mixer with channel widths of less than 100 µm.

5. (Previously Presented) The process according to claim 1, wherein the micromixer is a multilamination mixer or a split and recombine mixer.

6. (Previously Presented) The process according to claim 1, wherein the delay structure is a capillary of predefined volume or another volume with uniform flow or an arrangement with uniform flow.

7. (Previously Presented) The process according to claim 1, wherein the reaction mixture is pumped in circulation in the delay structure used, a micromixer optionally being inserted into the circuit.

8. (Withdrawn) An apparatus for performing the process according to claim 1.

9. (New) The process according to claim 1, wherein the label compound is a dye.

10. (New) The process according to claim 1, which comprises:

a) feeding a first solution comprising the biomolecule and a second solution comprising the label compound in defined quantitative flow rates to a first micromixer, wherein the biomolecule is selected from the group consisting of proteins, nucleic acids and saccharides, and the label compound is a dye;

b) intensively mixing said first and second solutions in the first micromixer to form a reaction mixture and effect a reaction between the biomolecule and the label compound;

c) feeding the reaction mixture into a delay structure;

d) retaining the reaction mixture in the delay structure for a time predetermined by the volume of the delay structure and the flow rate of the reaction mixture into the delay structure; and

d) optionally terminating the reaction after the predefined time.

11. (New) The process according to claim 10, wherein the reaction mixture is pumped in circulation in a circuit in the delay structure, and a second micromixer is inserted into the circuit.